

Amendment and Response Under 37 C.F.R. 1.116

Applicant: Jason D. Hanzlik et al.

Serial No.: 10/730,698

Filed: December 8, 2003

Docket No.: 10395US01

Title: TAPE REEL ASSEMBLY WITH WEAR RESISTANT DRIVEN TEETH

REMARKS

The following remarks are made in response to the Final Office Action mailed March 17, 2006. In the Final Office Action, claims 1, 3-6, 10, 12-15, 17, 19-23, 25, and 26 were rejected under 35 U.S.C. § 102(b) as being anticipated by Morita et al., U.S. Patent Publication No. 2002/0158161 ("Morita"), and claims 2, 7-9, 11, 16, 18, and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Morita in view of Boutni, U.S. Patent No. 4,749,738 ("Boutni").

With this Response, claims 4, 12-13, 19-20, and 22 have been cancelled, and claims 1, 3, 10, and 17 have been amended. Claims 1-3, 5-11, 14-18, 21, and 23-26 remain pending in the application and are presented for consideration and allowance.

35 U.S.C. § 102 Rejections

Claims 1, 3-6, 10, 12-15, 17, 19-23, 25, and 26 were rejected under 35 U.S.C. § 102(b) as being anticipated by Morita.

Applicants recognize that amendments to finally rejected claims cannot be made as a matter of right. However, with this Response, certain of the claims have been amended to include language from dependent claims that have already been examined, and various others of the claims have been cancelled to place the application in condition for allowance.

The Examiner takes the position at page 2 of the Final Office Action mailed March 17, 2006 that Morita teaches a tape reel assembly including a hub 21 defining a tape winding surface and teeth 42 and 63. Applicants respectfully disagree based upon the express teachings of Morita.

With reference to FIGS. 2 and 3, Morita teaches at paragraph 108: "The reel 2 consists of a bottom cylindrical reel hub 21, in which magnetic tape is wound on the outer periphery, and upper and lower flange portions 22 and 23 respectively projected in disk form in the radial direction from the upper and lower ends of the outer periphery of this reel hub 21." (Emphasis added). Morita teaches that the reel 2 includes a reel gear 24. Consequently, based upon the express teaching of Morita, the reel 2/hub 21 does not include teeth 42 and 63.

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In particular, Morita teaches at paragraph 110 that a separate reel-rotation restraining means 10 includes a restraining member 4 and a releasing member 6. The restraining member 4 includes the gear/teeth 42, and the releasing member 6 includes the push up portion 63 (See FIG. 2). Morita teaches in paragraphs 113-117 that the restraining member 4 and the releasing member 6 move independently of the reel 2 to selectively lock (prevent rotation) and unlock (permit rotation) the reel 2.

For example, Morita teaches in paragraphs 110-111 that the restraining member 4 restricts rotation of the reel 2 by moving into and away from the reel 2. In addition, Morita teaches that portions of the releasing member 6 are inserted into and through holes bored into the reel 2 to enable the releasing member 6 to move the restraining member 4 in a releasing direction. The express teaching of Morita compels the conclusion that elements 4 and 6 are independent and separate from the reel 2/hub 21.

Morita teaches at paragraph 119 that either the restraining member 4 or the releasing member 6 may be formed with synthetic resin containing a lubricant. However, nowhere does Morita teach or suggest the addition of a lubricant to the reel gear 24 that is otherwise a portion of the reel 2/hub 21.

With this background in mind, independent claim 1 has been amended to provide a hub defining a tape winding surface that includes a first end and an opposing second end, the hub including driven teeth projecting outwardly relative to one of the opposing ends of the tape winding surface and defining an engagement surface, where the driven teeth are formed from a polymer including a lubricating additive.

The proposed amendment positively recites a limitation from cancelled dependent claim 4 that the hub includes driven teeth, and the driven teeth are formed from a polymer including a lubricating additive. Morita does not teach or suggest at least this limitation. It is respectfully requested that the rejection to claim 1, and claims depending from claim 1, under 35 U.S.C. § 102(b) as anticipated by Morita be withdrawn, and these claims allowed.

Independent claim 10 has been amended to provide a data storage tape cartridge including a housing defining an enclosed region and at least one tape reel assembly rotatably

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disposed within the enclosed region and including a hub defining a tape-winding surface, a flange coupled to and extending in a radial fashion from an end of the hub, where the flange includes driven teeth defining an engagement surface; and where the driven teeth are exposed within an opening in the housing upon final assembly and are formed from a polymer including a lubricating additive. This proposed amendment recites a limitation from cancelled dependent claim 12.

The Examiner's position at page 3 of the Final Office Action mailed March 17, 2006 is that each of the elements 4 and 6 in Morita are seen to read upon the recited hub and flange portions. However, as set forth above, Morita teaches that the reel 2 consists of the hub 21 and the upper and lower flange portions 22 and 23, such that the hub 21 does not include the elements 4 and 6. Moreover, under any reasonable interpretation, Morita fails to teach or suggest a tape reel assembly including a hub defining a tape-winding surface, and a flange coupled to and extending in a radial fashion from an end of the hub, where the flange includes driven teeth defining an engagement surface that are formed from a polymer including a lubricating additive, as required by amended independent claim 10. Even if the elements 4 and 6 in Morita are incorrectly viewed as flange portions, the elements 4 and 6 do not extend in a radial fashion from an end of the hub 21.

It is respectfully requested that the rejection to claim 10, and claims depending from claim 10, under 35 U.S.C. § 102(b) as anticipated by Morita be withdrawn, and these claims allowed.

Independent claim 17 has been amended to provide generating a hub to include a tape winding surface that defines opposing ends and an integrally formed lower flange, the hub having driven teeth integrally formed thereon.

This proposed amendment positively recites a limitation from cancelled dependent claim 20. It is respectfully submitted that Morita does not teach or suggest generating a hub to include a tape winding surface that defines opposing ends and an integrally formed lower flange, the hub having driven teeth integrally formed thereon, as required by amended independent claim 17. It

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is respectfully requested that the rejection to claim 17, and claims depending from claim 17, under 35 U.S.C. § 102(b) as anticipated by Morita be withdrawn, and these claims allowed.

Based upon the above, it is respectfully submitted that claims 1, 3-6, 10, 12-15, 17, 19-23, 25, and 26 cannot be anticipated by Morita. It is respectfully requested that the rejections to these claims under 35 U.S.C. § 102(b) as being anticipated by Morita be withdrawn, and claims 1, 3-6, 10, 12-15, 17, 19-23, 25, and 26 be allowed.

35 U.S.C. § 103 Rejections

Claims 2, 7-9, 11, 16, 18, and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Morita in view of Boutni. It is conceded at page 4 of the Final Office Action mailed March 17, 2006 that Morita does not disclose a polymer including up to 25%, 2-10%, or 5% by weight lubricating additive, and that Morita does not disclose polycarbonate that is 20% glass-filled and containing approximately 5% by weight polytetrafluoroethylene. Boutni is asserted as teaching components formed from such compounds. The Examiner concludes that it would have been obvious to one having ordinary skill in the art to form the teeth of the tape reel assembly taught by Morita to include the polymer compositions taught by Boutni. Applicants respectfully disagree.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify or combine the reference teachings. Second, there must exist a reasonable expectation of success. Third, the references must teach or suggest all of the claim limitations. MPEP § 2143.

First, as described above, the references fail to teach or suggest all of the claim limitations, such that a *prima facie* case of obviousness cannot be established.

For example, the purported combination of the references fails to teach or suggest a hub defining a tape winding surface that includes a first end and an opposing second end, the hub including driven teeth projecting outwardly relative to one of the opposing ends of the tape winding surface and defining an engagement surface; where the driven teeth are formed from a polymer including a lubricating additive, as required by amended independent claim 1.

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The purported combination of the references fails to teach or suggest a tape reel assembly including a hub defining a tape-winding surface, and a flange coupled to and extending in a radial fashion from an end of the hub, where the flange includes driven teeth defining an engagement surface that are formed from a polymer including a lubricating additive, as required by amended independent claim 10.

The purported combination of the references fails to teach or suggest generating a hub to include a tape winding surface that defines opposing ends and an integrally formed lower flange, the hub having driven teeth integrally formed thereon, as required by amended independent claim 17.

Second, Applicants respectfully submit that there is no suggestion or motivation available in the cited references to modify the reel 2 of Morita to include teeth 24 provided with the additives taught by Boutni. In this regard, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not in Applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); MPEP § 2143.

Third, even if the purported combination is made, the resulting device would merely provide the reel-rotation restraining means 10 of Morita (elements 4 and 6) with the polymer compositions taught by Boutni. Nowhere does Morita teach or suggest the addition of a lubricant to the reel gear 24 that is otherwise a portion of the reel 2/hub 21.

Based upon the above, it is respectfully requested that the rejections to claims 2, 7-9, 11, 16, 18, and 24 under 35 U.S.C. § 103(a) as being unpatentable over Morita in view of Boutni be withdrawn, and that claims 2, 7-9, 11, 16, 18, and 24 be allowed.

CONCLUSION

Applicants respectfully request that the amendments, directed to the cancellation of claims and believed to necessitate only a cursory review by the Examiner, be entered. Applicants respectfully submit that pending claims 1-3, 5-11, 14-18, 21, and 23-26 recite patentable subject matter, are in form for allowance, and are not taught or suggested by the cited

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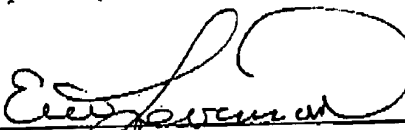
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references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-3, 5-11, 14-18, 21, and 23-26 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 09-0069.

The Examiner is invited to telephone the Applicants' representative at the below-listed numbers to facilitate prosecution of this application.

Respectfully submitted,

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